

Electron Lens Superconducting Solenoid Status

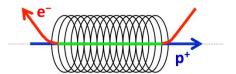
Michael Anerella

January 4, 2011





Outline

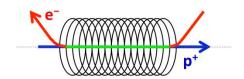


- Corrector coils
- Main solenoid coils
- Anti-Fringe field, Fringe Field coils
- Schedule





Corrector coils

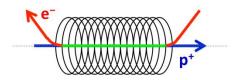


- 1st aluminum tube machining:
 - complete, inspected, to be picked up this week
- Coil winding travelers drafted, being reviewed
- Assembly Drawings, parts, in progress
- Other materials (Nomex, substrate, transfer tape, etc.) in house or on order





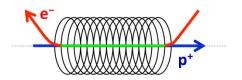
Main Solenoid Coils



- Gantry tested, ready to use
- Main support tube on order, due 1/6/11 1/14/11
- Machining drawing completed, being signed off.
- Superconductor shipped to NEWT
- Kapton insulating of sc order placed, delivery promised
 2/2/11 (partial quantities sooner)
- Assembly drawing, parts drawings underway (LR)



AFF, FF Solenoid coils

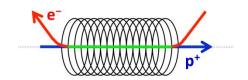


- AFF conductor is "drop-offs" from main solenoid so delivery is the same
- AFF support hub
 - Model / drawings finished
 - Material received
 - Machining 1st 2 hubs underway, finished next week
- Assembly drawing completed, being reviewed
- Winding machine upgrade hardware ordered, due 12/30
- FF work to follow AFF





Latest schedule



0	Task Name	D i ratio i	Start	Flash Predec	02 03 04 01 02 03
	electron lens solenoid	544.5 days	4/5/10	5/22/12	N D J F M A M J J A S O N D J F M A
=	Preliminary Design	80 days	4/5/10	7/27/10	
	Final Design	100 days	7/28/10	12/20/10 ²	
	Fabrication / Procurement	170 days	7/28/10	4/1/11 ²	
	Magnet #1	280.5 days	1/10/11	2/10/12	
	Solenoid Coil Assembly	60 days	2/7/11	5/2/11 45 S+13	31
5	Fringe Field Solenoid Coils	72 days	2/7/11	5/18/11	
	AFF Coil #1 AFF Coil #2	12 days	2/7 /11 2/2 4/1 1	2/23/11 3/11/11	
	FF Coil #1	24 days	3/14/11	4/14/11	
	FF Coil #2	24 days	4M5M1	5M8M1	
	Block Corrector Coils	54 days	1/10/11	3/28/11	
	Yoke Assembly	35 days	5/19/11	7/8/11 6,36,77	'
4	Vertical Cold Test	39.5 days	7/11/11	9/2/11 6,92	
2	Cold Mass Assembly	11 days	9/2/11	9/19/11 4,104	
7	Magnet Assembly	40 days	9/19/11	11/14/11 112	
5	Final Magnet Test	64 days	11/14/11	2/10/12 117	
3	Magnet #2	298.5 days	3/29/11	5/22/12	
4	Solenoid Coil Assembly	60 days	5/3/11	7/27/11 ⁶	
4	Fringe Field Solenoid Coils	72 days	5/19/11	8/30/11 ⁸⁶	
5	AFF Coil #1	12 days	5/19/11	6/6/11	
3	AFF Coil #2 FF Coil #1	12 days 24 days	6/7/11 6/23/11	6/22/11 7/27/11	_
	FF Coil #2	24 days	7/28/11	8/30/11	
5	Block Corrector Coils	54 days	3/29/11	6/13/11	
0	Yoke Assembly	35 days	8/31/11	10/18/11 215,14	4.1
2	Vertical Cold Test	39.5 days	10/19/11	12/13/11 230	
0	Cold Mass Assembly	11 days	12/13/11	12/28/11 242	
5	Magnet Assembly	40 days	12/28/11	2/22/12 ²⁵⁰	
3	Final Magnet Test	64 days	2/22/12	5/22/12 ²⁵⁵	

Meets 4/12 need date (2 months earlier than last schedule)



